

ABSTRACT

When a digital video signal is compressed by a given method and the compressed signal is transformed to a video signal of another compression method, the code amount of the transformed video signal sometimes exceeds the capacity of a transmission channel. Therefore, an input digital video signal is discrete cosine transformed. A quantizer is selected which enables both code amounts that are obtained by applying first and second variable length codings on AC components of the discrete cosine transformed digital video signal, to be equal to or smaller than a differential code amount that is obtained by subtracting, from a predetermined code amount, a maximum additional information amount which is a larger one of information amounts of first and second additional information, and a maximum DC code amount which is a larger one of a predictive code amount which is obtained by performing difference predictive coding on DC components of the discrete cosine transformed input digital video signal, and a fixed code amount in the case where the DC components are set to a fixed length. The AC components of the discrete cosine transformed digital video signal are quantized by the selected quantizer, and DC components and the first additional information are added to produce a first bit stream.